

IN THE CLAIMS:

Kindly amend claims 1-7 as follows:

1. (Currently Amended) A device for iontophoresis supplying a drug to transdermal or transmucosal tissues, having positive and negative output terminals, comprising:

a first means circuit having comprising:

(a) a detection circuit for detecting a reactive current flowing through a capacity component of impedance of the transdermal or the transmucosal tissues based on current outputted from the negative output terminal; and/or

(b) a detection circuit for detecting a residual voltage developed in by the charge remaining in a capacity component of impedance of the transdermal or the transmucosal during an off-period of an output tissue based on a voltage existing between the output terminals during an off-period of an output; and

a second means circuit for determining a conduction state of current into the transdermal or the transmucosal tissue based on the output detected by the first means circuit.

2. (Currently Amended) The device for iontophoresis according to Claim 1, wherein the detection circuit for detecting the reactive current ~~includes~~ further comprises:

a resistor coupled to ~~an~~ the negative output terminal,

a switch for sending one of positive and negative waveforms of current from the resistor,

and

a capacitor for smoothing out the current waveform ~~from~~ appearing across the switch.

3. (Currently Amended) The device for iontophoresis according to Claim 1, wherein the detection circuit for detecting the residual voltage ~~includes~~ further comprises a discharging resistor coupled between the output terminals.

4. (Currently Amended) A method for determining ~~an~~ the operation of an iontophoresis apparatus having positive and negative output terminals, comprising: wherein

detecting a reactive current flowing through a capacity component of impedance of the transdermal or the transmucosal tissue by measuring a current outputted from the negative output terminal; and/or

detecting a residual voltage developed by the charge remaining in a capacity component of impedance of the transdermal or the transmucosal tissue by measuring voltage appearing between the output terminals during an off-period of an output, ~~is detected to determine~~

thus determining a conduction state of current flowing into the transdermal or the transmucosal tissue.

5. (Currently Amended) The method for ~~detecting-determining the~~ an operation of an iontophoresis apparatus according to Claim 4, wherein the detection of the reactive current is carried out so as to send one of positive and negative waveforms of current appearing across

~~from~~ a resistor coupled to ~~an~~ the negative output terminal by using a switch and smoothing out the current waveform by using a capacitor.

6. (Currently Amended) The method for ~~detecting~~ determining the ~~an~~ operation of an iontophoresis apparatus according to Claim 4, wherein the detection of the residual voltage is carried out by using a discharging resistor coupled between the output terminals.

7. (Currently Amended) An iontophoresis apparatus comprising:

a preparation for iontophoresis, holding a drug; and

a device for iontophoresis having:

(a) means for generating an electrical output through positive and negative output terminals to supply a drug from the preparation into transdermal or transmucosal tissue; and
~~means~~

(b) a circuit for detecting a reactive current flowing through a capacity component of impedance of the transdermal or the transmucosal tissue based on a current outputted from the negative output terminal and/or a circuit for detecting a residual voltage developed ~~in~~ by the charge remaining in a capacity component of impedance of the transdermal or the transmucosal tissue based on voltage existing between the output terminals during an off-period of an output, to determine a conduction state of a current flowing into the transdermal or the transmucosal tissue.